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1923

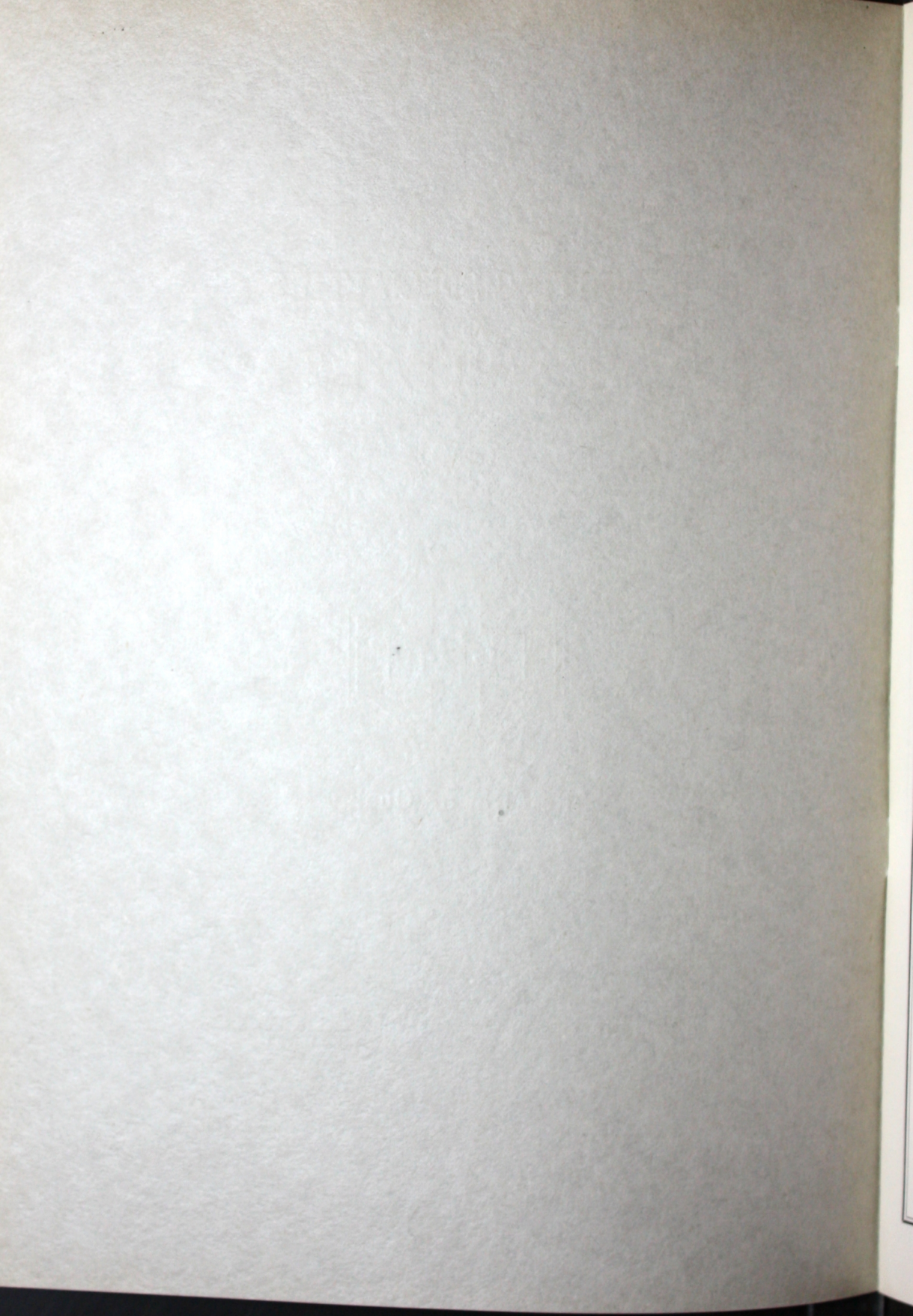
FRINK
LIGHTING SPECIALTIES
~ for ~
HOSPITALS



The Sign of Quality

ESTABLISHED
1857

CATALOG
426



I. P. FRINK

Reflectors

*Designer and Manufacturer of
Scientific and Artistic*

LIGHTING SPECIALTIES

The Reflectors illustrated herein
are original FRINK designs and
are covered by patents issued

April 25, 1911 July 2, 1912
Nov. 14, 1911 July 30, 1912

Other Patents Pending

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I. P. FRINK, Inc.
24th Street and 10th Avenue
NEW YORK

BRANCH OFFICES

- | | |
|--|---|
| BIRMINGHAM, ALABAMA
526 The Age-Herald Bldg. | MONTREAL, CANADA
64 Belair Ave. |
| BOSTON, MASSACHUSETTS
161 Summer St. | PHILADELPHIA, PENNSYLVANIA
1107 Franklin Trust Bldg. |
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| DETROIT, MICHIGAN
325 State St. | ST. LOUIS, MISSOURI
1415 Pine St. |

Frink Operating Table Reflectors

Hundreds
Now in Use

With Automatic Ventilation

Nothing
Better Made

Frink Operating Table Reflectors are now being used in nearly all first class hospitals throughout the country.

With this device an unusually strong light is obtained—over 60 foot-candles concentrated on the table. This intensity would be impractical if the heat generated by the lamps were not drawn off by an ingenious ventilating system incorporated in the reflector.

This system is purely automatic in action and is based on the principle of convection currents in air (see cut 18669). Two tubes or funnels (A) are mounted vertically within the reflector, connecting the cool air chamber (B) with the hot air expulsion chamber at top. The heat of the adjacent lamps introduces an unbalanced thermal condition, causing air to be drawn into the space (B), upward through the tubes, finally expelling it through the top. The constant circulation thereby effected maintains the lower plate at minimum temperature. Carefully conducted tests have shown the temperature rise at this point to not exceed ten degrees above room temperature, after an hour's continuous use.

This fixture is constructed with framework of heavy gauge steel, with ample air space between the inner and outer casing. This prevents the outer surface from becoming heated sufficiently to effect the finish.

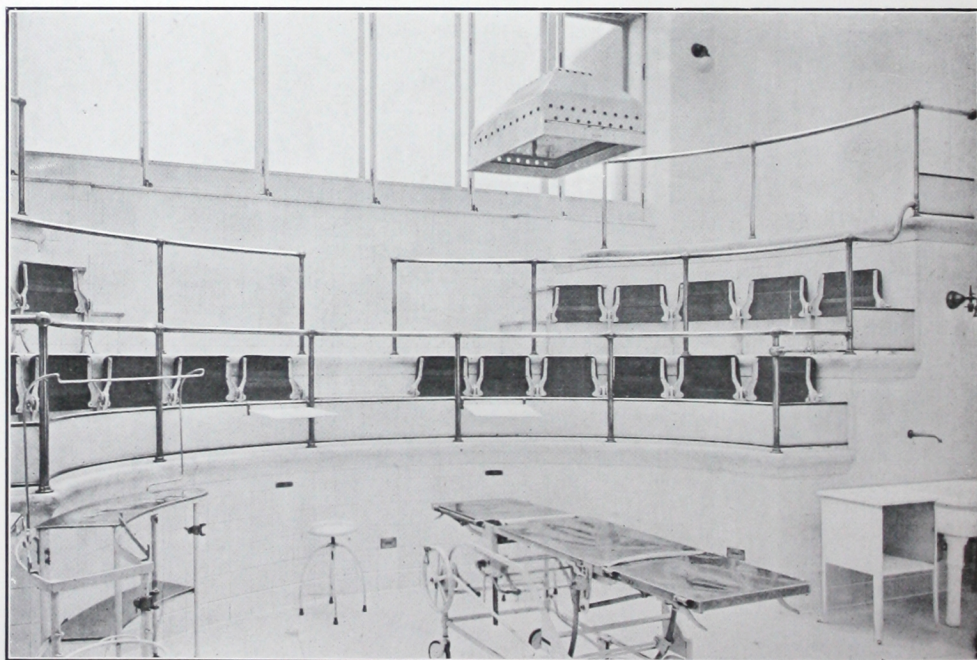
The inner casing or reflector proper is lined with our special silvered, ripple glass.

These reflectors are equipped for six 100-watt Type C lamps, wired in two circuits, and should be installed 7 feet from floor to bottom of reflector.

The entire fixture is finished in white enamel, which we guarantee not to discolor, flake or peel off.

All fixtures can be supplied with ceiling lights for general illumination. See page 7.

WHEN ORDERING, STATE HEIGHT OF CEILING. STANDARD LENGTH, 6 FEET OVER ALL.



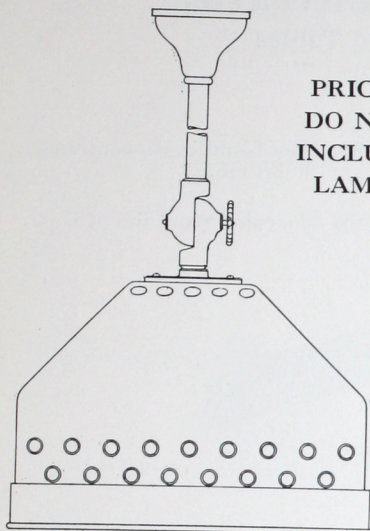
SLOANE MATERNITY HOSPITAL, NEW YORK. OPERATING TABLE REFLECTOR No. 18669

Frink Operating Table Reflectors

With Automatic Ventilation

PRICES
DO NOT
INCLUDE
LAMPS

FOR
LINOLITE
LAMPS
SEE
PAGE 5

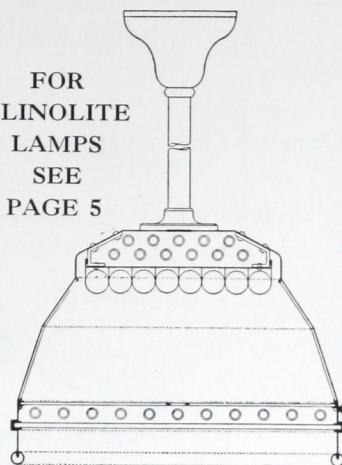


END VIEW

No. 18672, ADJUSTABLE AS TO ANGLE
Reflector same as No. 18669

List Price..... \$210.00

PATENTED

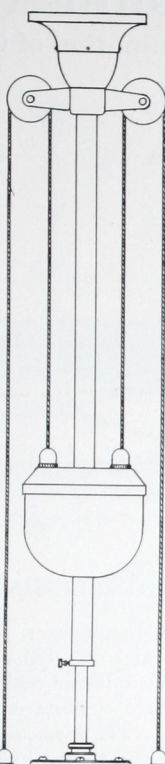


END VIEW

No. 18671, FOR EIGHT 40-WATT
FRINK LINOLITE LAMPS
Size of Reflector, 15 x 18 in.

List Price..... \$195.00

All types can be furnished with
ceiling lights for general illumi-
nation. See page 7.

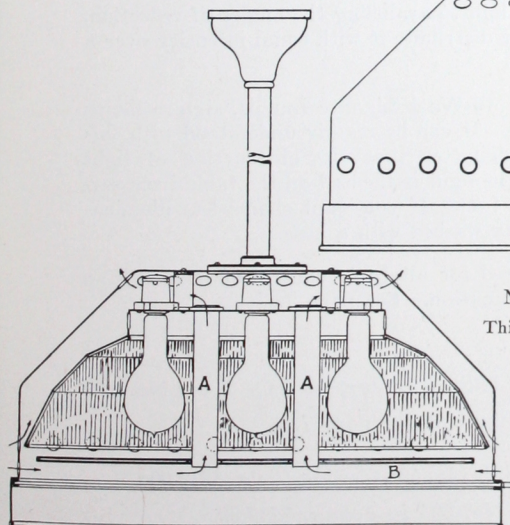


SIDE VIEW

No. 18670 ADJUSTABLE

This fixture is so balanced that
it can be raised and low-
ered with one hand,
without affecting
its electrical con-
nections.

List Price,
\$292.50



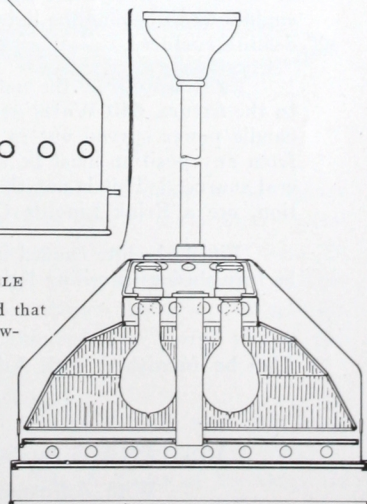
No. 18669, LONGITUDINAL AND CROSS SECTIONAL VIEWS. SCALE: 1½" = 1 FT.

REFLECTOR 18 x 24 IN.

LIST PRICE..... \$187.50

For combination Gas and Electric add \$45.00 to list price

See next pages 4, 5, 6 and 7 for other types.



Frink Linolite Concentrator

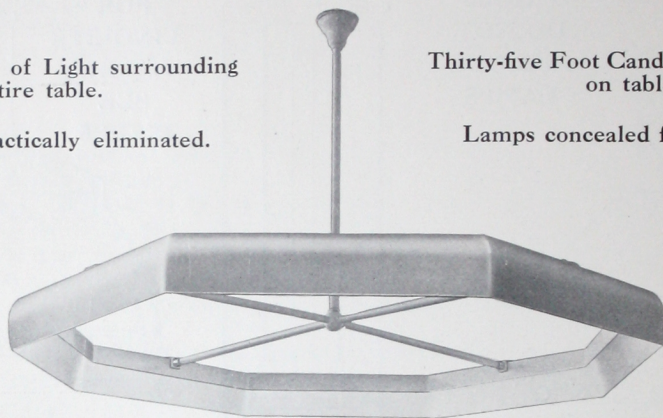
For the Illumination of Operating Tables

Complete Line of Light surrounding
entire table.

Shadows practically eliminated.

Thirty-five Foot Candles concentrated
on table.

Lamps concealed from the eye.



No. 600

THE LATEST IDEA FOR THE ILLUMINATION OF OPERATING TABLES

An octagonal reflector, 6 feet in diameter, surrounding the entire table, so designed that the direct light of the lamps and reflected light is confined to the top of the table. (See diagrammatic drawing and one-quarter scale section on opposite page.) The Frink Linolite Lamp used with this fixture consists of a glass tube one inch in diameter and eleven and one-quarter inches long. The filament extends the entire length of the tube—through the center. When placed end to end “Frink Linolite” forms a continuous “line of light.” The filament being a line source of light, paralleling the angles of reflection, enables us to confine the light to a given area or distribute it with equal intensity over a definite surface.

Each section of the octagon contains two 40-Watt Linolite Lamps, sixteen lamps to the fixture, 640 Watts or 480 Candle Power. It can be readily understood with this candle power spread out in a line six feet in diameter that the obstruction of light from any position must be far less than when the light is focused on the table from several sources. This is not theory but a physical fact. If you want shadowless illumination, use a Frink Linolite Concentrator—can be washed with a hose.

Finished white enamel inside and out. Wired for alternate control of lamps. Can be furnished with ceiling lights for general illumination. See page 7.

Can be furnished with Adjustable Focusing Unit in center, see page 7, cut No. 604.

For Emergency Gas Equipment see page 7.

LIST PRICE as shown, \$195.00 With No. 603 Ceiling Light, \$218.00

With Adjustable Focusing Unit No. 604 in center, \$217.00

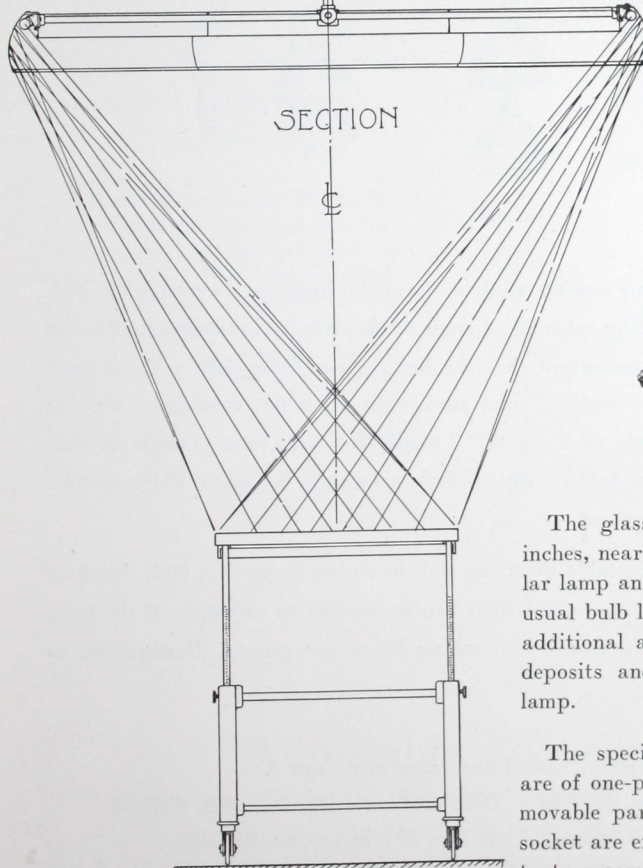
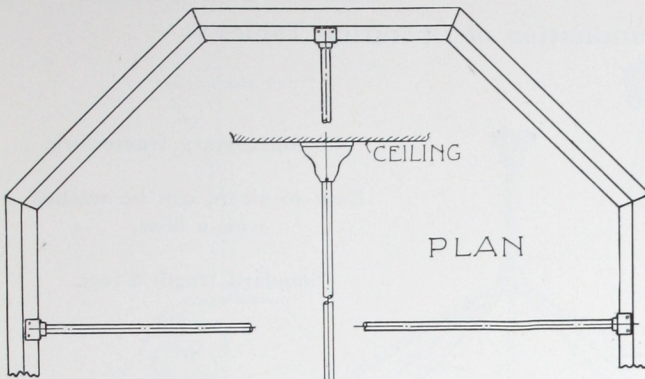
With Focusing Unit and Ceiling Light, \$240.00

Lamps not included.

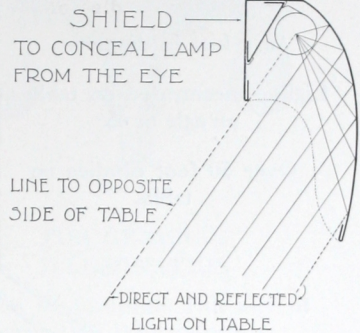
For Lamps see page 5.

Frink Linolite Concentrator

For the Illumination of Operating Tables



$\frac{1}{4}$ FULL SIZE SECTION
OF CONCENTRATOR



Note that lamp and direct reflection is below the line of vision.

FRINK LINOLITE LAMPS



The glass area of this lamp is 31 square inches, nearly twice that of the ordinary tubular lamp and about 20 per cent. more than the usual bulb lamps of equal candle-power. This additional area reduces the effects of natural deposits and enhances the useful life of the lamp.

The special sockets for use with this lamp are of one-piece porcelain and involve only one movable part. No live parts of the lamp or socket are exposed to endanger accidental contact or possible short circuits.

WHEN ORDERING REFLECTORS
STATE HEIGHT OF CEILING
SHOULD BE INSTALLED 7 FEET FROM FLOOR
TO BOTTOM OF REFLECTOR

List Price of Mazda Linolite Lamps,
40-Watt, 110 to 125 Volts..... \$2.25

Frink "Multilite" Concentrator

For the Illumination of Operating Tables

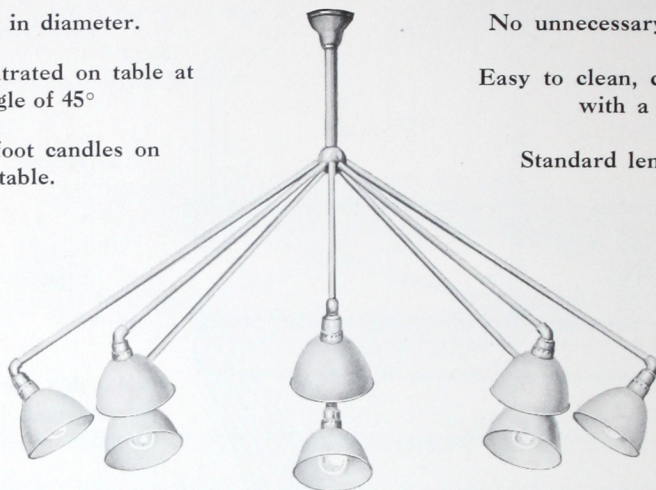
Six feet in diameter.
Light concentrated on table at
an angle of 45°

Over 50 foot candles on
table.

No unnecessary framework.

Easy to clean, can be washed
with a hose.

Standard length 6 feet.



No. 601

Frink Multilite Concentrator consists of eight Parabolic Reflectors, arranged to concentrate the light on the operating table at an angle of about forty-five degrees. Similar to the Frink Linolite Concentrator except that the light comes from eight units instead of a line source. Reflectors are made of spun steel, with white fire enameled reflecting surface. Using 100-Watt Mazda or Type "C" Lamps, over fifty foot candles are concentrated on the center of the table. Entire fixture finished in baked white enamel. Should be installed 7 feet from floor.

Can be furnished with Adjustable Focusing Unit in center, as per No. 604, shown on page 7. With this arrangement an intense light can be focused on any part of the table or at any angle. Can also be furnished with ceiling lights for general illumination, as shown on page 7.

For Emergency Gas Equipment see page 7.

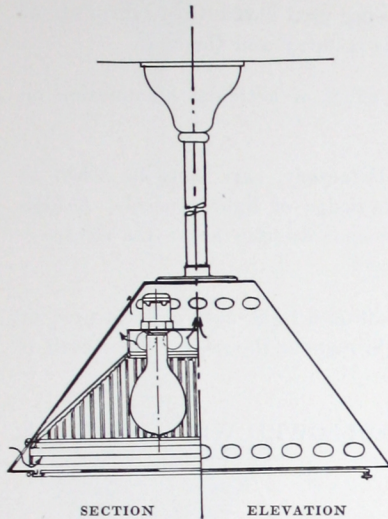
LIST PRICE as shown, \$135.00 With Ceiling Light No. 603, \$158.00

With Adjustable Focusing Unit No. 604 in center, \$157.00

With Adjustable Focusing Unit and Ceiling Light, \$180.00

Prices do not include lamps

Frink Operating Table Reflector

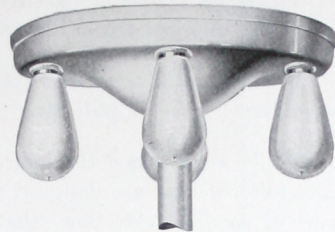


No. 602

Ventilated reflector, 22 inches square with glass door at bottom; lined with our special silvered ripple glass. Will give excellent results where a low priced fixture is desired. Made for four 100-Watt Type C lamps; finished white enamel. Standard length, 6 feet.

List Price..... \$120.00

Frink Ceiling Light



No. 603

FOR GENERAL ILLUMINATION

Can be furnished with any of the operating table reflectors.

Spread 12 in. List Price, 4-Lt.

Finished Nickel Plated.. \$23.00

Finished White Enamel.. \$23.00

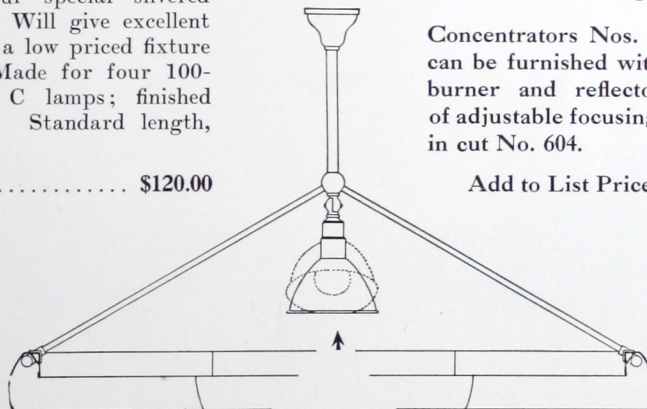
EMERGENCY

GAS

EQUIPMENT

Concentrators Nos. 600 and 601 can be furnished with reflex gas burner and reflector in place of adjustable focusing unit shown in cut No. 604.

Add to List Prices, \$25.00



No. 604

Adjustable Focusing Unit

Steel Fire Enameled

Can be furnished with No. 600 and No. 601. With this arrangement an intense light can be focused on any part of the table or at any angle. When furnished with No. 600 the reflector supports are raised in the center as shown in cut.

List Price..... \$22.00

Lamps not included.

Frink Ward Lighting Reflectors

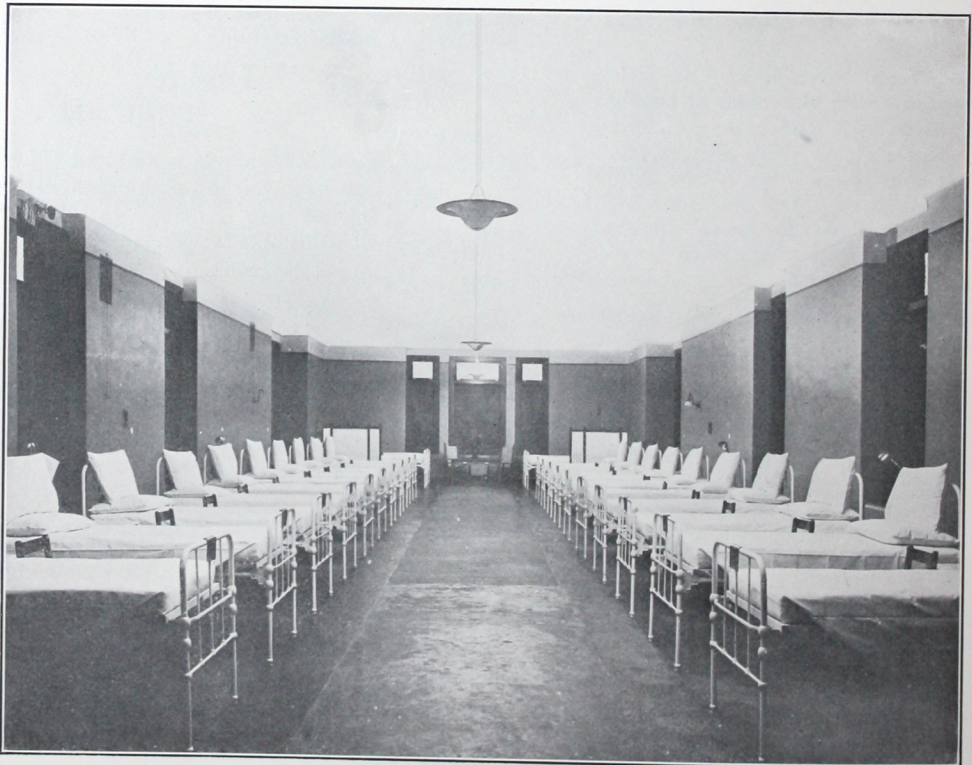
The Frink system of Hospital Lighting is now being used in the City Hospitals of New York, and many other hospitals throughout this country and Canada.

We have made a careful study of the irritating effect of artificial illumination on the weakened eyes of patients.

While we consider the indirect system most satisfactory, care must be taken to select fixtures that are designed with a thorough knowledge of light control. A high point of specular reflection—that is, a glaring light spot directly above the fixture—is as bad as an exposed light source.

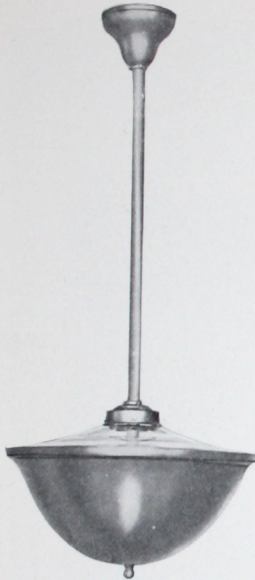
Our reflectors are designed to distribute evenly diffused light over a large area of the ceiling, from whence it is redirected and diffused throughout the room. The result is a soft, pleasing effect, very agreeable to the eyes.

WHEN OUR RECOMMENDATIONS ARE FOLLOWED WE GUARANTEE SATISFACTORY RESULTS.



WARD LIGHTED WITH FRINK REFLECTORS

Frink Ward Lighting Reflectors



**INDIRECT CLUSTER
REFLECTOR**

Spread, 16 inches	List Price
No. 605. 2 Light.....	\$31.00
No. 606. 3 Light.....	32.50
No. 607. 4 Light.....	33.75

Made of brass, lined with our special silvered, ripple glass. Equipped with clear glass cover for dust protection. Finished in white enamel or mat nickel.

Furnished
Wired with Socket
attached

Complete except Lamps

Standard Length
36 inches over all



REFLECTOR-DIFFUSER

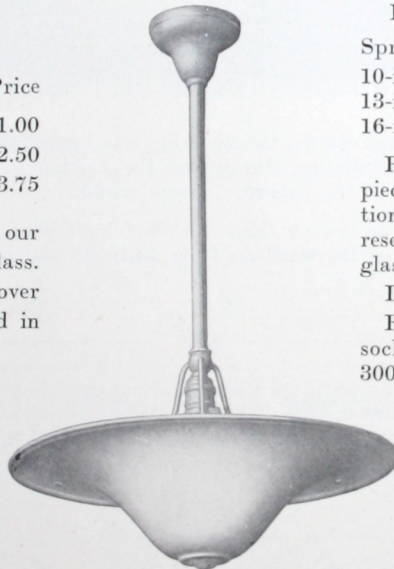
Spread	List Price
10-in. No. 608.....	\$14.25
13-in. No. 609.....	17.75
16-in. No. 610.....	21.00

Reflector and diffuser in one piece, the upper and lower portions having a special treatment resembling white opal, with clear glass between.

Dust and insect proof.

Equipped with adjustable socket for one 75, 100, 200 or 300-Watt Type C lamp.

Finished white enamel or mat nickel.

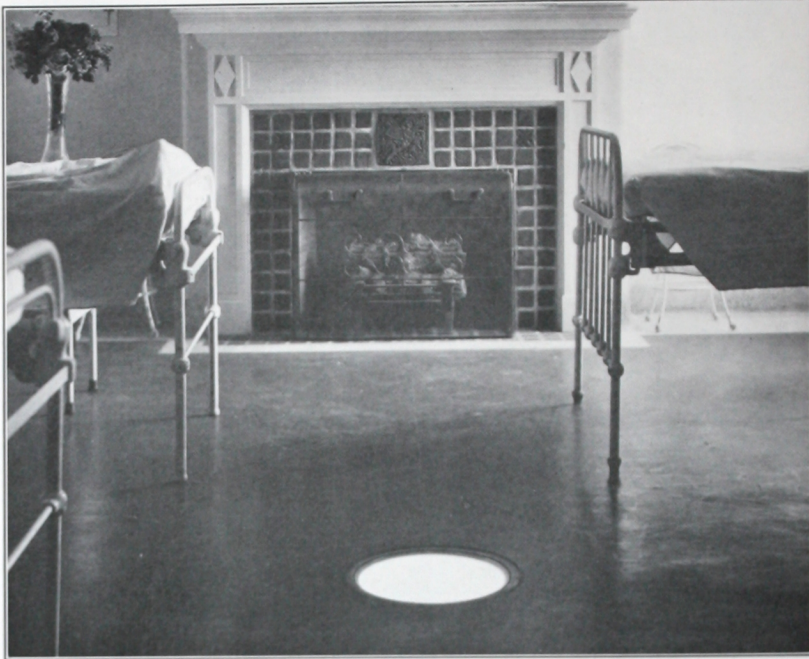


Spread, 20 in.

No. 611. List Price..... \$19.50

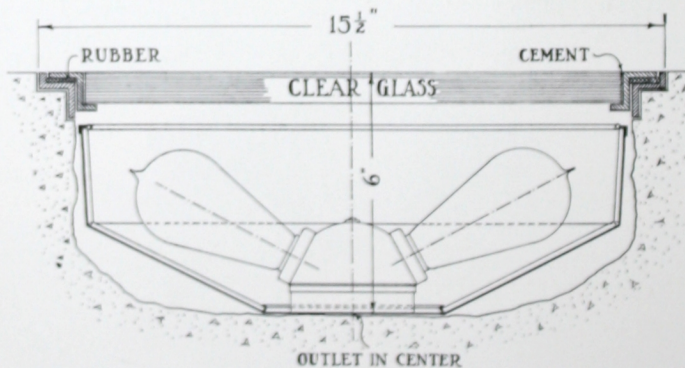
White, fire enameled steel reflector equipped with socket for one 75 or 100-Watt Type C lamp.

Frink Floor Light



In both small and large wards, the floor light is useful and may be placed in the passage ways, thereby distributing throughout the ward a soft, pleasing and effective illumination, entirely out of the patient's normal vision.

They are equipped for two or three 40-Watt bulb lamps, and may be spaced in accordance with the size of the ward on from 20 to 35 feet centres.



No. 615. $\frac{1}{4}$ FULL SIZE

Prices on application.

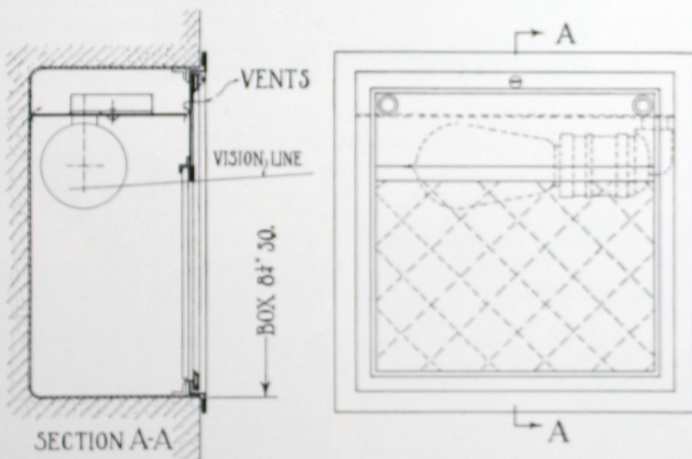
Frink Wall Lights



Frink Wall and Floor Lights have been developed to supply the demand for soft, well diffused light sources, so placed as to eliminate entirely annoyance due to glare. They supplant in a sanitary and satisfactory manner the usual bracket or ceiling night lights.

Wall lights in private rooms are placed to one side of the bed, and afford ample light for the nurse in her rounds, while entirely concealing the source from the patient. These are also used in corridors to supply the necessary illumination after the general lighting has been switched off.

Both of these appliances are in successful use and are heartily endorsed by leading authorities. They are well worth the consideration of those planning or revising the equipment of hospital buildings.



No. 616. $\frac{1}{4}$ FULL SIZE

Designed for one 25- or 40-watt bulb lamp

Prices on application.

Frink Microscopic Reflector



No. 614

Housing Spun in One Piece.

Back Containing Focusing Reflector, Removable.

Equipped With Color Filter for Daylight Conversion.

Lamps and Filters Concealed from the Eye.

Only One Lamp Required for Darkfield and
Regular Examinations.

Adjustable to Any Angle.

In the examination of germ bacteria under a powerful microscope, it is sometimes difficult to arrive at definite results when working under light sources of varying spectral value. We have made a careful study of this problem and have perfected a lamp that meets all requirements for microscopic examinations.

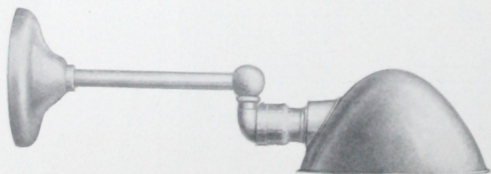
The housing is 7 inches long, $4\frac{1}{2}$ inches in diameter, equipped with adjustable reflector for concentrating the light on screens or filters, and is furnished with one 100-Watt Type "C" Stereopticon Lamp. This lamp is sufficiently strong for Darkfield examinations. When used with our Daylight Filter, artificial daylight is obtained. Can also be equipped with white-ground filter for diffused light, giving more contrast for stained specimens. Reflector is finished dull black.

Price includes six feet of cord, plug and lamp.

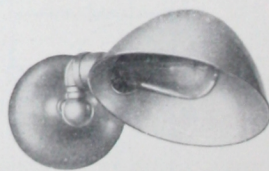
List Price.....	\$30.00	Daylight Filter.....	\$4.50
	White Ground Filter.....		\$2.00

Frink Adjustable Bed Light

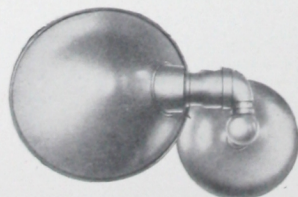
This fixture can be instantly adjusted to throw the light in any direction. When directed on bed a strong light is obtained for examination; when directed on side wall a soft light for reading; when directed to ceiling a well diffused light is obtained for general illumination. Especially recommended for private rooms. Extension 17 inches over all. Finished white enamel or mat nickel. Inside of reflector mat aluminum.



DOWNWARD DIRECT

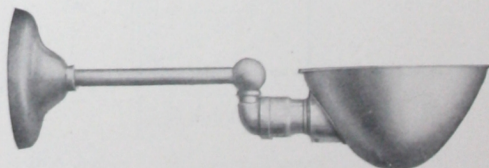


CONCENTRATED ON BED FOR EXAMINATIONS



INDIRECT FROM WALL FOR READING

Can be
installed with
socket
up or down



INDIRECT FROM CEILING FOR GENERAL
ILLUMINATION

No. 612. For 25, 40 or 60-WATT LAMPS

List Price \$17.25

Frink Polaralite Signs

FRINK POLARALITE SIGNS consist of a heavy sheet of plate glass into which the lettering or design is deeply sandblasted. An entirely new departure in construction, so different from ordinary signs that it at once attracts attention by its striking and forceful appeal.

The source of illumination is entirely hidden. The light enters the plate through the edge. The plate appears dead except where the blasting occurs, giving a surprisingly beautiful and original effect.

The examples shown are merely suggestions; there is practically no limit to the variety of designs which can be carried out in these signs. We shall be glad to submit sketches and full information on request and co-operate in carrying out the ideas of any prospective buyer.

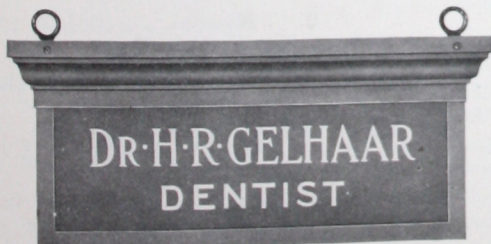
Information Required in Order to Quote Prices:

Type of Sign Desired—Approximate Size
To Read from One or Both Sides—Reading Matter
What Finish for Metal Parts



No. 19424

Made Single and Double Face



No. 19419

Made Single and Double Face



No. 19420

Made Single and Double Face

Partial List of Hospitals Using Frink Equipment

St. Vincent's Male Orphan Asylum Albany, N. Y.	Du Bois Hospital Du Bois, Pa.	Lockport City Hospital Lockport, N. Y.
County Hospital Arlington, Cal.	Emergency Hospital Easton, Md.	De Barkin Hospital Long Beach, Cal.
Ashtabula General Hospital Ashtabula, Ohio	Ralston Hospital El Paso, Texas	St. Mary's Hospital Marquette, Mich.
Atlantic City Hospital Atlantic City, N. J.	St. Joseph Hospital Fort Wayne, Ind.	City Poor Farm Marshalsea, Pa.
Auburn City Hospital Auburn, N. Y.	John Seeley Hospital Galveston, Texas	Dept. Charities, Male Hospital Marshalsea, Pa.
Phipps Clinic, Johns Hopkins Hospital Baltimore, Md.	City of Grand Haven Hospital Grand Haven, Mich.	Royal Victoria Hospital Montreal, Canada
Barre Hospital Barre, Vt.	St. Leo's Hospital Greensboro, N. C.	Drummond Hospital Montreal, Canada
Homeopathic Hospital Boston, Mass.	Camp Hill Military Hospital Halifax, N. S.	Morristown Memorial Hospital Morristown, N. J.
Brooklyn State Hospital Brooklyn, N. Y.	Hitchcock Memorial Hospital Hanover, N. H.	Napa State Hospital Napa, Cal.
Brownsville and East New York Hospital Brooklyn, N. Y.	Harrisburg Hospital Harrisburg, Pa.	Nashua Memorial Hospital Nashua, N. H.
Long Island State Hospital Brooklyn, N. Y.	Department Public Charities Hartford, Conn.	Central Hospital for Insane Nashville, Tenn.
Morse Dry Dock Hospital Brooklyn, N. Y.	Hartford Hospital Hartford, Conn.	St. Michael's Hospital Newark, N. J.
Peck Memorial Hospital Brooklyn, N. Y.	Hale Hospital Haverhill, Mass.	Lincoln Private Hospital Newark, N. J.
Brookville Hospital Brookville, Pa.	St. Mary's Hospital Hoboken, N. J.	Willard Parker Hospital New York, N. Y.
Brant House Military Hospital Burlington, Ont.	Providence Hospital Holyoke, Mass.	Sea View Hospital New York, N. Y.
Mary McClellan Hospital Cambridge, N. Y.	John Sealy Hospital Houston, Texas	Flower Hospital Pavilion New York, N. Y.
Memorial Hospital Canandaigua, N. Y.	N. Y. Training School for Girls Hudson, N. Y.	St. Luke's Hospital New York, N. Y.
U. S. General Hospital, No. 11 Cape May, N. J.	Huntington Hospital Huntington, L. I.	Gouverneur Hospital New York, N. Y.
U. S. General Hospital Carlisle, Pa.	R. W. Long Hospital Indianapolis, Ind.	R. C. Hospital New York, N. Y.
Municipal Tubercular Hospital Chicago, Ill.	W. C. A. Hospital Jamestown, N. Y.	Mount Sinai Hospital New York, N. Y.
North Chicago, Hospital Chicago, Ill.	St. Francis Hospital Jersey City, N. J.	Medical College Hospital for Women New York, N. Y.
Peoples Hospital Chicago, Ill.	Cambria Steel Co. Johnstown, Pa.	Sloane Hospital for Women New York, N. Y.
Geisinger Memorial Hospital Danville, Pa.	Mercy Hospital Johnstown, Pa.	Bellevue Hospital New York, N. Y.
	Christian Church Hospital Kansas City, Mo.	Beth Israel Hospital New York, N. Y.
	Dunson Hospital La Grange, Ga.	

Partial List of Hospitals Using Frink Equipment

Presbyterian Hospital New York, N. Y.	Pasadena Hospital Association Pasadena, Cal.	Ellis Hospital Schenectady, N. Y.
N. Y. Women's Hospital New York, N. Y.	General Hospital Paterson, N. J.	Moose Jaw Hospital Moose Jaw, Sask.
Sailors' Snug Harbor, S. I., Hospital New York, N. Y.	Honolulu Naval Hospital Pearl Harbor, Honolulu	L. H. Buhl Hospital Sharon, Pa.
S. S. Ryndam New York, N. Y.	Hog Island Emergency Hospital Philadelphia, Pa.	Overlook Hospital Summit, N. J.
U. S. S. Manchuria New York, N. Y.	Samaritan Hospital Philadelphia, Pa.	Lancaster Hospital St. John, N. B.
St. Christopher's Hospital for Babies New York, N. Y.	Phipps Institute Philadelphia, Pa.	Missouri Pacific Hospital St. Louis, Mo.
Grand Central Palace, U. S. Govt. DeBark, No. 5 New York, N. Y.	Frankford Hospital Philadelphia, Pa.	Toledo Hospital Company Toledo, Ohio
Booth Memorial Hospital, Salvation Army New York, N. Y.	University of Pennsylvania, Surgical Pavilion Philadelphia, Pa.	Toronto Orthopedic Hospital Toronto, Ont.
Beth David Hospital New York, N. Y.	St. Mary's Hospital Philadelphia, Pa.	Military Orthopedic Hospital Toronto, Ont.
Navy Yard Hospital New York, N. Y.	Philadelphia General Hospital Philadelphia, Pa.	Rosedale Hospital Toronto, Ont.
Hahneman Hospital New York, N. Y.	Government Hospital Colon, Panama	Homeopathic Hospital Utica, N. Y.
Bronx Maternity Hospital New York, N. Y.	St. Joseph Hospital Phoenix, Ariz.	Masonic Memorial Hospital Utica, N. Y.
United Fruit Company New York, N. Y.	Marshalsea Hospital Pittsburgh, Pa.	Faxton Hospital Utica, N. Y.
Dr. Nielsen's Sanitarium New York, N. Y.	State Institute Polk, Pa.	Twin Falls Hospital Twin Falls, Idaho
Tonsil Hospital New York, N. Y.	Memorial Hospital Piqua, Ohio	U. S. Naval Hospital Washington, D. C.
U. S. Public Health Hospital, 67 New York, N. Y.	Kings Daughters Hospital Portsmouth, Va.	Williamsport Hospital Williamsport, Pa.
St. Bartholomew's Hospital New York, N. Y.	United Fruit Co. Preston, P. B.	State Hospital for Crippled and Deformed Children West Haverstraw, N. Y.
Hayes Sanitarium New York, N. Y.	Earl Grey Hospital Regina, Sask.	General Hospital Winnipeg, Man.
Jewish Memorial Hospital New York, N. Y.	Rome Custodial Asylum Rome, N. Y.	Manitoba Military Hospital Winnipeg, Man.
Hospital for Insane North Battleford, Sask.	Mount Zion Hospital San Francisco, Cal.	Loomis Institute Windsor, Conn.
Oak Park Hospital Oak Park, Ill.	City and County Hospital San Francisco, Cal.	Military Convalescence Hospital Whitby, Ont.
Olney Sanitarium Olney, Pa.	Children's Hospital San Francisco, Cal.	Homeopathic Hospital Wilmington, Del.
	Saratoga Hospital Saratoga Springs, N. Y.	Ohio Valley General Hospital Wheeling, W. Va.
	Presbyterian Hospital San Juan, P. I.	St. Elizabeth Hospital Youngstown, Ohio

Frink Service

Our Branch Offices Are Prepared to Give Expert Advice on
Illuminating Problems of Every Description

BIRMINGHAM, ALA.

526 The Age-Herald Building

BOSTON, MASS.

161 Summer Street

BUFFALO, N. Y.

310 Mutual Life Building

CHICAGO, ILL.

1309 Monadnock Building

CINCINNATI, OHIO

601-603 Second National Bank Building

CLEVELAND, OHIO

992 The Arcade

DETROIT, MICH.

325 State Street

MONTREAL, CANADA

64 Belair Avenue

PHILADELPHIA, PA.

1107 Franklin Trust Building

PITTSBURGH OFFICE

501 Ferguson Building

PORTLAND, ORE.

45 Fourth Street

SAN FRANCISCO, CAL.

77 O'Farrell Street

SEATTLE, WASH.

609 Seaboard Building

ST. LOUIS, MO.

1415 Pine Street

I. P. FRINK, Inc.

24th Street and 10th Avenue

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